

Montana
Comprehensive Assessment
System (MontCAS, Phase 2)
Criterion-Referenced Test (CRT)

COMMON CONSTRUCTED-RESPONSE ITEM RELEASE
MATHEMATICS, GRADE 4

2008



OFFICE OF PUBLIC INSTRUCTION

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Mathematics

Session 1 (No Calculator)

You may NOT use a calculator during this part of the test.

Write your answer in the space provided for it in your Student Response Booklet. Show all of your work.

25. Haley made a secret-number guessing game. She picked a number **less** than 23 and wrote three clues about her number.

Clue 1: My number is even.

a. List all the numbers that Haley's secret number could be.

Clue 2: I say my number when I start at 4 and skip-count by 4s.

b. List all the numbers that Haley's secret number could be.

Clue 3: My number is a multiple of 3.

c. What is Haley's secret number?

d. Make another secret-number guessing game.

- Write three clues Haley could use to find your number.
- The game must have **only one** correct answer.
- Be sure to write the answer.

Scoring Guide

Score	Description
4	4 points
3	$3 - 3\frac{1}{2}$ points
2	$2 - 2\frac{1}{2}$ points
1	$\frac{1}{2} - 1\frac{1}{2}$ points
0	Response is incorrect or contains some correct work that is irrelevant to the skill or concept being measured.
Blank	No response.

Scoring Notes

Part a: 1 point writes correct numbers: **2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22**, or **0, 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22**

OR

$\frac{1}{2}$ point correctly lists at least 5 numbers

OR

correctly lists even numbers and 1 or more even number above 22

Part b: 1 point writes correct numbers: **4, 8, 12, 16, 20**

OR

$\frac{1}{2}$ point correctly lists at least 3 numbers

OR

$\frac{1}{2}$ point for correct answers that exceed 23

Part c: 1 point writes correct number, **12**

Part d: 1 point for 3 correct clues and answer

OR

$\frac{1}{2}$ point for 3 correct clues with no answer

Note: Do not penalize students for more than 3 correct clues.

Sample Response:

Part d: Clue 1: My number is less than 20.

Clue 2: I say my number when I skip-count by 5s.

Clue 3: My number is a multiple of 3.

My number is 15.

Score Point 4

Sample 1

a.	2, 4, 6, 8, 10, 12
b.	14, 16, 18, 20, 22.
c.	4, 8, 12, 16, 20.
d.	6, 12, 18, 24

Clue 1: my number is under 10.
Clue 2: my number is an even number
Clue 3: my number is a multiple of 3.

answer
6

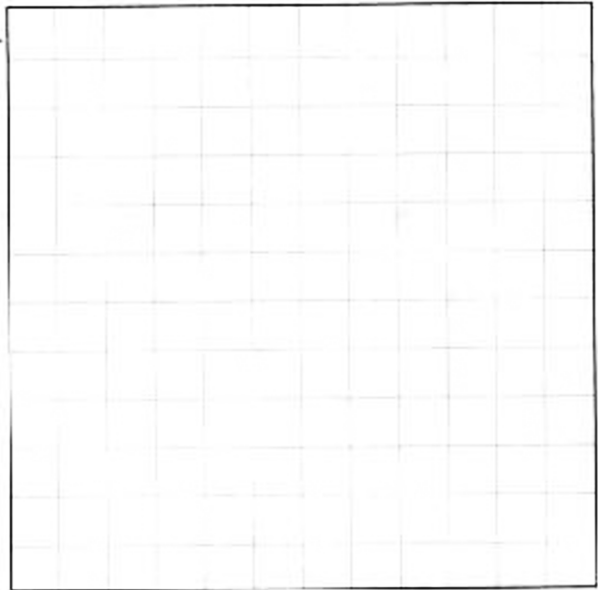
A. 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, and 22 are numbers her secret number could be.

B. 4, 8, 12, 16, and 20 are possible.

C. Haley's number is 12.

D. Clue 1: It is less than 20.
Clue 2: I say my number when I count by 2's.
Clue 3: It is a multiple of 9.

The answer is 18.



Score Point 3

Sample 1

Clue 1: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22.

Clue 2: 4, 8, 12, 16, 20

Clue 3: 3, 6, 9, 12, 15, 18, 21

12 is the
secret
number.

Let itra made a secret number less
then 8 look at the clues to figure it out

It's an even number

It's a multiple of 3

And it is a multiple of 2.

Score Point 3

Sample 2

(A.) 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22,

(B.) 4, 8, (12), 16, 20,

(C.) Haley's secret number is (12).

(D.)



clue 1. My number is odd.

clue 2. You can find it when counting by 3's.

clue 3. It is a multiple of 3.

The answer to D. is

9

Score Point 2

Sample 1

A. 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24

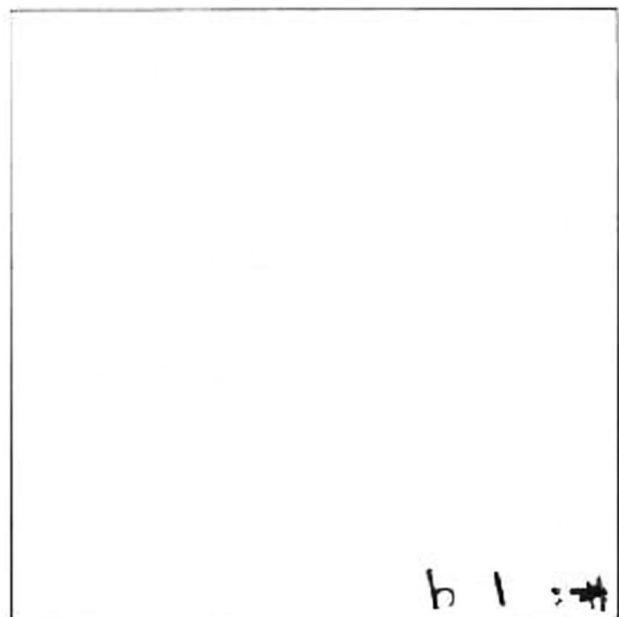
B. 4, 12, 20,

C. 12

Clue 1: my # is not
an odd #

Clue 2: it is not a
multiple of 3

Clue 3: I say it were
I count by 2



a. 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22

b. 8, 12, 16, 20

c. Haley's secret number is 12.

Clue 1: My number is odd.

a. List all the numbers that my secret number could be.

Clue 2: I say my number when I start at 5 and skip-count by 5s.

b. List all the numbers that my secret number could be.

Clue 3: My number is a Multiple of 3. c. What is my secret number?

My secret number is 15.

Score Point 1

Sample 1

(A) 7, 11, 12, 16, 13.

(b) 4, 8, 12, 16, 20, 23, 27

(c) 8

(d) you count by 2's
to get to my number
twice

what is my number

my number is 6

Score Point 1

Sample 2

Clue 1 - 22

a. 22, 20, 18, 16, 14, 12, 10, 8, 6, 4, 2

b. 4, 8, 12, 16, 20, 24, 28, 32, 36, 40.

c. I think Haley's secret number is.....8

d.

- my number is odd

- It is one of these numbers

3, 5, 7, 9, 11

- my number is not a

multiple of 10. Can you
guess what my number is?

answer = 11

Score Point 1

Sample 3

12, its
a multiple
of 3, skip
count by 4
and is even.

A. 22, 24, 28
B. 4, 8, 24, 28
C
D